Agency/Group or Author	Approach (e.g., indicator, index, model)	Basis of Approach
EPA	EJSCREEN Pb Paint Indicator	Housing with highest likelihood of lead paint used in the past.
EPA	EJSCREEN Pb Paint Index	Areas with the highest likelihood of lead paint, as well as low income and minority populations
Shultz et al., 2017	Regression model	Estimate childhood lead exposure in every Census tract in the United States in the absence of screening data.
FILL IN OTHER APPROACHES BY EPA AND OTHER AGENCIES		

New Data Generation?	Environmental or Other Lead Sources Considered (e.g., paint, contaminated sites, food, drinking water)	Blood Lead Data Utilized
No	Old Homes (paint)	None
Yes	Old Homes (paint)	None
Yes predictive modeling data	Old Homes (paint) Air Emissions Facilities	Blood Lead Level Data from: MI Department of Community Health, MA Department of Public Health, Texas Department of State Health Services, and National Health and Nutrition Examination Survey (NHANES)

Environmental-Related Variables and Data Utilized	Sociodemographic, EJ Variables and Data Utilized
None	Age of Housing (pre-1960)
None	American Community Survey: age of housing (pre-1960), percent low-income and percent minority (EJSCREEN takes the of average the two)
Air and Exposure Data from: National Scale Air Toxics Assessment (NATA)	American Community Survey: percentage of population below poverty line, pecentage of pre-1950 housing, percentage of pre-1960 housing, percentage of non-Hispanic black population, percentage of Hispanic population, median year housing built, median household income, percentage of population >25 with at least a high school degree, percentage of housing renter occupied units

Data Years for Each Variable	Childhood Age(s)	Geographic Scale (e.g., national, regional, community)	Geographic Location (e.g., specific region, state, or community)	Geographic or Spatial Resolution
ACS Data: 2011 - 2015 (Updated annually)	NA	national	United States	Block Group
ACS Data: 2011 - 2015 (Updated annually)	NA	national	United States	Block Group
BLL Data: MI (1999-2009), MA (2000-2009), TX (1999-2009) ACS Data: 2005-2009 NHANES Data: 2001-2010 NATA: 2011	1-2 years	national analysis using 3 states for model evaluation	United States	Census Tracts

Reference (e.g., publication or website)

https://www.epa.gov/ejscreen

https://www.epa.gov/ejscreen

Schultz, Bradley D., et al. "Predicting Blood-Lead Levels Among US Children at the Census Tract Level." Environmental Justice 10.5 (2017): 129-136.

Additional Notes

Percent of housing units built pre-1960, as indicator of potential lead paint exposure.

The EJ Index is constructed as follows: EJ Index =
(Lead Paint Indicator)
X (Average of Low Income/Minority for Block Group – Average of Low Income/Minority for US)
X (Population count for Block Group)

R2 value for predicting BLLs with this multivariate regression model was 0.28, 0.20, and 0.69 from MA, TX, and MI, respectively.